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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,321	09/24/2001	Roy A. Black	016761/0170	8287
22428	7590	03/13/2006	EXAMINER	
FOLEY AND LARDNER LLP			STEADMAN, DAVID J	
SUITE 500			ART UNIT	
3000 K STREET NW			PAPER NUMBER	
WASHINGTON, DC 20007			1656	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,321

Applicant(s)

BLACK ET AL.

Examiner

David J. Steadman

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 66 and 70-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 66 and 70-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2002 and 23 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Application

[1] A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/16/2005 has been entered.

[2] The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1656.

[3] Claims 66 and 70-76 are pending in the application.

[4] Applicant's amendment to the claims, filed on 3/16/2005, is acknowledged. This listing of the claims replaces all prior versions and listings of the claims.

[5] Applicant's amendment to the specification, filed on 3/16/2005, is acknowledged.

[6] Receipt of three sets of color drawings and a Petition under 37 CFR 1.84 to accept color drawings, all filed on 6/23/2005, is acknowledged.

[7] Applicant's arguments filed on 3/16/2005 are acknowledged. Applicant's arguments have been fully considered and are deemed to be persuasive to overcome some of the rejections and/or objections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

[8] The text of those sections of Title 35 U.S. Code not included in the instant action can be found in a prior Office action.

Color Drawings

[Handwritten signature]
3/9/06

[9] 37 CFR § 1.84 sets forth three requirements for accepting color drawings in a utility application as follows: (i) The fee set forth in § 1.17(h); (ii) Three (3) sets of color drawings; and (iii) An amendment to the specification to insert (unless the specification contains or has been previously amended to contain) the following language as the first paragraph of the brief description of the drawings: "The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee."

[10] The color drawings filed on 6/23/2005 are accepted as a petition under 37 CFR § 1.84 to accept color drawings has been filed on 6/23/2005, applicant has authorized payment of the appropriate fee (see Letter filed on 6/23/2005), has submitted three sets of color drawings, and has amended the specification to include the language noted above (specification amendment at p. 10, filed on 3/2/2005).

Specification/Informalities

[11] The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included in applicant's claim to domestic priority at the first paragraph of the specification. If a parent application has become a patent, the

expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

Claim Rejections - 35 USC § 103

The following excerpt is from MPEP § 2106 section VI " DETERMINE WHETHER THE CLAIMED INVENTION COMPLIES WITH 35 U.S.C. 102 AND 103" and is applied to the below 35 USC §103(a) rejection wherein the claimed limitations of "machine readable data comprising structure coordinates", "the structure coordinates of Figure 3" and "the structure coordinates that are also present in the portion of the protein specified in Table 2" are considered "non-functional descriptive" material (see independent claims 1, 6, 11, and 16).

As is the case for inventions in any field of technology, assessment of a claimed computer-related invention for compliance with 35 U.S.C. 102 and 103 begins with a comparison of the claimed subject matter to what is known in the prior art. If no differences are found between the claimed invention and the prior art, the claimed invention lacks novelty and is to be rejected by Office personnel under 35 U.S.C. 102. Once distinctions are identified between the claimed invention and the prior art, those distinctions must be assessed and resolved in light of the knowledge possessed by a person of ordinary skill in the art. Against this backdrop, one must determine whether the invention would have been obvious at the time the invention was made. If not, the claimed invention satisfies 35 U.S.C. 103. Factors and considerations dictated by law governing 35 U.S.C. 103 apply without modification to computer-related inventions.

If the difference between the prior art and the claimed invention is limited to descriptive material stored on or employed by a machine, Office personnel must determine whether the descriptive material is functional descriptive material or nonfunctional descriptive material, as described supra in sections IV.B.1(a) and IV. B.1(b). Functional descriptive material is a limitation in the claim and must be considered and addressed in assessing patentability under 35 U.S.C. 103. Thus, a rejection of the claim as a whole under 35 U.S.C. 103 is inappropriate unless

Art Unit: 1656

the functional descriptive material would have been suggested by the prior art. > In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).< Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability).

Common situations involving nonfunctional descriptive material are:

- a computer-readable storage medium that differs from the prior art solely with respect to nonfunctional descriptive material, such as music or a literary work, encoded on the medium,
- a computer that differs from the prior art solely with respect to nonfunctional descriptive material that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer), or
- a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention.

Thus, if the prior art suggests storing a song on a disk, merely choosing a particular song to store on the disk would be presumed to be well within the level of ordinary skill in the art at the time the invention was made. The difference between the prior art and the claimed invention is simply a rearrangement of nonfunctional descriptive material.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[12] Claim(s) 66 and 70-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cirilli et al. [(1997) *FEBS Lett* 418:319-322; cited in the IDS filed on 2/4/2002] in view *In re Gulack* 217 USPQ 401 (Fed. Cir. 1983) and *In re Ngai* 70

USPQ2d 1862 (Fed. Cir. 2004). See MPEP § 2144 regarding legal precedent as a rationale in rejecting claims as being obvious over the prior art.

The claims are drawn to a “computerized system” for “depicting and analyzing” a TACE polypeptide comprising a catalytic domain, wherein the “computerized system” comprises the components as encompassed by the claims, including a “first-type storage region” comprising the structural coordinates of Table 1.

Cirilli et al. teaches a computer comprising the elements as recited in the claims (see particularly p. 320, left column, top). The computer of Cirilli et al. lacks the data of Table 1.

In *Gulack and Ngai*, the respective Court held that nonfunctional descriptive material in a claim does not distinguish over the prior art in terms of patentability. The key factor in analyzing the obviousness of these claims over the prior art is the determination that the machine-readable data storage medium is known and is unmodified. If the difference between the prior art and the claimed invention as a whole is limited to descriptive material stored on or employed by a machine, it is necessary to determine whether the descriptive material is functional descriptive material or nonfunctional descriptive material. In this case, the structural coordinates as disclosed in Table 1 are non-functional descriptive material and the claims are drawn to a known computer. The structural coordinates of Table 1 do not impose a change in the computer and are thus non-functional descriptive material. Non-functional descriptive material cannot render non-obvious an invention that would have otherwise been obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention for the computer as taught by Cirilli et al., wherein only non-functional descriptive material is additionally present in the claims, which do not distinguish the claimed computer from the computer of Cirilli et al. according to *In re Gulack* and *In re Ngai*.

[13] RESPONSE TO ARGUMENT: Addressing a previous rejection under 35 U.S.C. § 102(a) or 103(a), applicant argues the reference of Cirilli et al. does not disclose the atomic coordinates of TACE as set forth in Table 1. Applicant's argument addressing the rejection under 35 U.S.C. § 102(a) is persuasive and the rejection under 35 U.S.C. § 102(a) is hereby withdrawn. Because Cirilli et al. does not teach the atomic coordinates of Table 1, the reference of Cirilli et al. fails to anticipate the claimed invention. Furthermore, to the extent the rejection under 35 U.S.C. § 103(a) relied on Cirilli et al. alone, the rejection is withdrawn. It should be noted that applicant does not dispute that the computer of Cirilli et al. comprises all components as recited in the claims. The only apparent dispute is whether Cirilli et al. teaches the structural coordinates of Table 1. In view of the combination of the teachings of Cirilli et al. and the legal precedent of *In re Gulack* and *In re Ngai*, it is the examiner's position – for the reasons set forth above – that the claimed "computerized system" would have been obvious to one of ordinary skill in the art at the time of the invention.

[14] Claim(s) 66 and 70-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armistead et al. (US Patent 5,978,740) in view *In re Gulack* 217 USPQ 401 (Fed. Cir. 1983) and *In re Ngai* 70 USPQ2d 1862 (Fed. Cir. 2004). See MPEP § 2144 regarding legal precedent as a rationale in rejecting claims as being obvious over the prior art.

The claims are drawn to a “computerized system” for “depicting and analyzing” a TACE polypeptide comprising a catalytic domain, wherein the “computerized system” comprises the components as encompassed by the claims, including a “first-type storage region” comprising the structural coordinates of Table 1.

Armistead et al. teaches a computer comprising the elements as recited in the claims (see particularly claims 1 and 6, columns 7-9, and Figure 3). The computer of Armistead et al. lacks the data of Table 1.

In *Gulack* and *Ngai*, the respective Court held that nonfunctional descriptive material in a claim does not distinguish over the prior art in terms of patentability. The key factor in analyzing the obviousness of these claims over the prior art is the determination that the machine-readable data storage medium is known and is unmodified. If the difference between the prior art and the claimed invention as a whole is limited to descriptive material stored on or employed by a machine, it is necessary to determine whether the descriptive material is functional descriptive material or nonfunctional descriptive material. In this case, the structural coordinates as disclosed in Table 1 are non-functional descriptive material and the claims are drawn to a known computer. The structural coordinates of Table 1 do not impose a change in the

Art Unit: 1656

computer and are thus non-functional descriptive material. Non-functional descriptive material cannot render non-obvious an invention that would have otherwise been obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention for the computer as taught by Armistead, wherein only non-functional descriptive material is additionally present in the claims, which do not distinguish the claimed computer from Armistead et al. according to *In re Gulack* and *In re Ngai*.

[15] Claim(s) 66 and 70-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isaacs et al. (US Patent 5,864,488) in view *In re Gulack* 217 USPQ 401 (Fed. Cir. 1983) and *In re Ngai* 70 USPQ2d 1862 (Fed. Cir. 2004). See MPEP § 2144 regarding legal precedent as a rationale in rejecting claims as being obvious over the prior art.

The claims are drawn to a "computerized system" for "depicting and analyzing" a TACE polypeptide comprising a catalytic domain, wherein the "computerized system" comprises the components as encompassed by the claims, including a "first-type storage region" comprising the structural coordinates of Table 1.

Isaacs et al. teaches a computer comprising the elements as recited in the claims (see particularly columns 4-5 and 14 and Figures 8-9). The computer of Isaacs et al. lacks the data of Table 1.

In *Gulack* and *Ngai*, the respective Courts held that nonfunctional descriptive material in a claim does not distinguish over the prior art in terms of patentability. The key factor in analyzing the obviousness of these claims over the prior art is the determination that the machine-readable data storage medium is known and is unmodified. If the difference between the prior art and the claimed invention as a whole is limited to descriptive material stored on or employed by a machine, it is necessary to determine whether the descriptive material is functional descriptive material or nonfunctional descriptive material. In this case, the structural coordinates as disclosed in Table 1 are non-functional descriptive material and the claims are drawn to a known computer. The structural coordinates of Table 1 do not impose a change in the computer and are thus non-functional descriptive material. Non-functional descriptive material cannot render non-obvious an invention that would have otherwise been obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention for the computer as taught by Isaacs, wherein only non-functional descriptive material is additionally present in the claims, which do not distinguish the claimed computer from Isaacs et al. according to *In re Gulack* and *In re Ngai*.

Conclusion

[16] Status of the claims:

Claims 66 and 70-76 are pending.

Claims 66 and 70-76 are rejected.

Art Unit: 1656

No claim is in condition for allowance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Steadman whose telephone number is 571-272-0942. The examiner can normally be reached on Mon to Fri, 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Kerr can be reached on 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Steadman, Ph.D.
Primary Examiner
Art Unit 1656